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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,912	01/23/2004	Glyn Rodney Atkinson	1600-000003U	7757
28997	7590	03/08/2005	EXAMINER	
HARNES, DICKEY, & PIERCE, P.L.C			LOPEZ, MICHELLE	
7700 BONHOMME, STE 400			ART UNIT	
ST. LOUIS, MO 63105			PAPER NUMBER	
			3721	

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/763,912	Applicant(s) ATKINSON ET AL.	
	Examiner Michelle Lopez	Art Unit 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/20/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been received.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 12 recite the limitation "the first three harmonic mode shapes of vibration".

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-8, 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Rockwell (4,030,553).

With respect to claim 1, Rockwell discloses the process steps of: a) determining an estimated antinode position of vibration of the tool in use when the tip of the shaped working end

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is hinged and the tip of the striking end is free to vibrate, and b) locating a vibration damping member to cover the antinode position determined in step a) as shown in col. 4; 25-41.

With respect to claim 3, Rockwell discloses wherein the tool 12 is a uniform beam having a uniform section and uniformly distributed load as shown in col. 3; 38-51.

With respect to claim 4, Rockwell discloses in which at step a) an estimated antinode position of one mode shape from the first three harmonic modes shape of vibration of the tool in use is determined as shown in col. 4; 25-29.

With respect to claim 5, Rockwell discloses the steps of: c) determining a plurality of estimated antinode positions according to step a); d) selecting a plurality of antinode positions from the antinode positions determined at step c) to cover with a vibration damping member; and e) locating a vibration damping member arrangement to cover each selected antinode position as shown in col. 4; 25-41 and 60-65.

With respect to claim 6, Rockwell discloses wherein said vibration damping member arrangement comprises a vibration damping member located to cover more than one estimated antinode position as shown in col.4; 41-44.

With respect to claim 7, Rockwell discloses in which at step b) said vibration damping means is mechanically forced or shrunk onto said tool as shown in col. 5; 44-49.

With respect to claim 8, Rockwell discloses a tool for a powered machine having vibration damping means, a shaped working end having a tip, and a striking end having a tip, said vibration damping means comprising a vibration damping member located to cover an estimated antinode position of vibration of the tool in use when the tip of the shaped working end is hinged and the tip of the striking end is free to vibrate.

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With respect to claim 10, Rockwell discloses a vibration damping member that is mechanically forced or shrunk onto said tool as shown in col. 5; 44-49.

With respect to claim 11, Rockwell discloses a vibration damping member located to cover an estimated antinode position of vibration of the tool in use when the tool is modeled as a uniform beam having a uniform section and uniformly distributed load as shown in col. 3; 38-51.

With respect to claim 12, Rockwell discloses a vibration damping member located to cover an estimated antinode position of one mode shape from the first three harmonic mode shapes of vibration of the tool in use as shown in col. 4; 41-65.

With respect to claims 13 and 14, Rockwell discloses a vibration damping member arrangement located to cover each of a plurality of estimated antinode positions, wherein said vibration damping member arrangement comprises a vibration damping member located to cover more than one estimated antinode position as shown in col.4; 41-44.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rockwell (4,030,553) in view of Jensen et al. (3,842,942).

Rockwell discloses the claimed invention including a tool from machined steel, but does not disclose that the vibration damping means comprises a viscoelastic vibration damping member.

However, Jensen teaches a vibration damping means comprising a viscoelastic vibration damping member for the purpose of providing damping means as an elastic material that eventually returns from its distorted shape after a distorting force is removed. In view of Jensen, it would have been obvious to one having ordinary skill in the art to have provided Rockwell's invention with a viscoelastic vibration damping member in order to provide damping means as an elastic material that eventually returns from its distorted shape after a distorting force is removed.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mathewson'130, Richter'691, Voitsekhovsky'786, and Rabett'107 are cited to show related inventions.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Lopez whose telephone number is 571-272-4464. The examiner can normally be reached on Monday - Thursday: 8:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on 571-272-4467. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML


JOHN SIPOS
PRIMARY EXAMINER